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**PATENT** 

Paper No.

File: Greene-P1-03

Date: July 21, 2004

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor

REES, Frank L.

Serial No.

10/722,648

Filed

November 25, 2003

For

Gauss-Rees Parametric Ultrawideband System

**Group Art Unit** 

2643

Examiner

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Honorable Commissioner of Patents and Trademarks
Washington, D.C. 20231

## TRANSMITTAL LETTER

SIR:

Transmitted herewith for filing in the above-identified patent application are the following:

- 1. Information Disclosure Statement;
- 2. PTO Form 1449; and
- 3. Cited Art.

authorized to charge any fees associated with the above-identified patent application or credit any overcharges to Deposit Account No. 50-0235.

Please direct all correspondence to the undersigned at the address given below.

Respectfully submitted,

Date: July 21, 2004

Peter K. Trzyna (Reg. No. 32,601)

P.O. Box 7131 Chicago, IL 60680-7131 (312) 240-0824 I hereby certify that this correspondence is being filed by depositing it with the United States Postal Service as first class mail in an envelope with sufficient postage and addressed MS: IDS, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date indicated below.

**PATENT** 

Paper No.

File: Greene-P1-03

Date: July 21, 2004

Signed: Reg. No. 32,609

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor : REES, Frank L.

Serial No. : 10/722,648

Filed : November 25, 2003

For : Gauss-Rees Parametric Ultrawideband System

Group Art Unit : 2643

Examiner

Honorable Commissioner of Patents

and Trademarks Washington, D.C. 20231

### INFORMATION DISCLOSURE STATEMENT

SIR:

This Information Disclosure Statement is being filed pursuant to the duty of disclosure, candor, and good faith embodied in 37 C.F.R. § 1.56 and § 1.97 owed by the inventor, the inventor's assignee substantively involved in the application, and the patent attorney to the United States Patent and Trademark Office. In those cases from which the instant case claims priority, Applicant has previously submitted patents, publications, and/or other information of which the inventor is aware to help make this information of record. The Examiner is reminded to check those files for such materials.

I. COMMENT ON THE ENCLOSED ART

The section of the patent application subtitled "Background of the Invention"

identifies material believed to be material to, or of interest in, the examination of the application

and provides a concise explanation of the material. This Information Disclosure Statement

transmits copies of information which the undersigned respectfully requests the Examiner to

consider in the examination of the application.

While the Information Disclosure Statement, publications, and other information

provided by Applicant may be "material" pursuant to 37 C.F.R. § 1.56, it is not intended that

these constitute an admission of "prior art" for this invention. This Information Disclosure

Statement shall not be construed to mean that no other material information, as defined in 37

C.F.R. § 1.56, exists.

II. FEE

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Should any fees be deemed necessary, the Commissioner is authorized to

charge any deficiency or to credit any over payment to Deposit Account No. 50-0235.

III. SIGNATURE

The patent attorney signs below based on information from the inventor's and

the attorney's file.

Respectfully submitted,

Date: July 21, 2004

Peter K. Trzyna (Reg. No. 32,601)

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- 2 -

Atty. Docket No. Greene-P1-03	Serial No. 10/722,648
Applicant: Frank L. Rees	
Filing Date:	Group:
November 25, 2003	2574
Foreign Patent Documents	Other Art
See Page	See Pages 1-2
	Applicant: Frank L. Rees  Filing Date: November 25, 2003  Foreign Patent Documents

## **U.S. Patent Documents**

Exam. Init.	Ref. Des.	Document Number	Date	Name	Class	Sub Class	Filing Date if App.
	Al						
	A2					:	

# **Foreign Patent Documents**

Exam. Init.	Ref. Des.	Document Number	Date	Country	Class	Sub Class	Translation Yes/No
	B1						
-	B2						

# Other Art (Including Author, Title, Date, Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
	Cl	"An Intensive Short Course on NonLinear Acoustics and Parametric Sonar", Sheraton Motor Inn, December 3-6, 1974, Pgs. 1-618
	C2	"Parametric Acoustic Array", Peter J. Westervelt, The Journal of the Acoustical Society of America, April, 1963, Vol. 35, No. 4, Pgs. 535-537
	C3	"Fairfield Performance of parametric Transmitters", Berktay, H.O., Leahy, D.J., Pgs. 539-546
	C4	"Possible Exploitation of Non-Linear Acoustics In Underwater Transmitting Applications," Berktay, H.O., April 13, 1965, Vol. 2, Pgs. 435-461
	C5	"Some Proposals for Underwater transmitting Applications of Non-Linear Acoustics," <i>Berktay</i> , H.O., 1967, Vol. 6, Pgs. 244-253
	C6	"A Model for Parametric Sonar Radiator Design," <i>Mellen, R.H.</i> , and <i>Moffett, M.B.</i> , U.S. Navy Journal of Underwater Acoustics, April, 1972, Vol. 22, No. 2, Pgs. 105-116
	C7	"On the Performance of a Dual Frequency Parametric Source Via Matched Asymptotic Solutions of Burgers," Fenlon, Francis Hugh, Journal of the Acoustic Society of America, January, 1974, Vol. 55, No. 1.
	C8	"Harmonics of the Difference Frequency in Saturation-Limited Parametric Sources,", Hillette, John G, and Moffett, Mark., August, 1975, 12 pages

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EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

Form PTO-1449 (modified)  List of Patents and Publications for Applicant's INFORMATION DISCLOSURE STATEMENT  (Use several sheets if necessary)			Atty. Docket No. Greene-P1-03	Serial No. 10/722,648
		Applicant: Frank L. Rees		
		Filing Date:	Group:	
		November 25, 2003	2574	
	U.S. Patent Documents F		oreign Patent Documents	Other Art
See Page 1		See Page 1	See Pages 1-2	

#### Other Art (Including Author, Title, Date, Pertinent Pages, Etc.) Ref. Citation Exam. Init. Des. C9 "A General Theory for the Scattering of Sound By Sound,", Woodsum, H.C. and Westervelt, P.J., Journal of Sound and Vibration, 1981, 76(2), Pgs. 179-181 C10 "Nonlinear Equations of Acoustics, with Application to Parametric Acoustic Arrays," Tjotta, Jacqueline Naze and Tjotta, Sigve, Journal of the Acoustic Society of America, June, 1981 69(6), Pgs. 1644-1678 "An Ultrasonic Transducer for High Power Applications in Gases," J.A. Gallego-Juarez et al, C11 November 29, 1977, 5 pages C12 Propagation of Finite-amplitude Ultrasonic Waves in Air-I. Spherically Diverging Waves in the Free Field," J.A. Gallego-Juarez et al, Journal of the Acoustic Society of America, March, 1983, 73(3), Pgs. 761-767 C13 Propagation of Finite-amplitude Ultrasonic Waves in Air-II. Plane Waves in a Tube," J.A. Gallego-Juarez et al, Journal of the Acoustic Society of America, March, 1983, 73(3), Pgs. 768-C14 "Acoustic Analogues of Nonlinear-Optics Phenomena," Bunkin, F.v., et al., Sov. Phys: USA.29 (7), July, 1986, Pgs. 607-619 "Nonlinear Effects in Focused Sound Beams," Hart, Timothy S. et al., Journal of the Acoustic C15 Society of America, October 1988, 84(4), Pgs. 1488-1496 C16 "Non-linear Effects of Acoustic Generation in Solids," Abramov, O.V. et al., Institute of Solid State Physics, June 14, 1989, 7 pages C17 "Nonlinear Acoustics," Beyer, Robert T., February 14, 1974, Pgs. iii-212 C18 "The Sound Laser," Zimmer, Carl, Discover, July 1994, 1 page C19 "Acoustic Analogues of Nonlinear-Optics Phenomena, Bunkin, F.V., Sov. Phis: Usp 20(7), July, 1988, Pg. 507 C20 "A Focused Beam of Amplified, Coherent Sound Waves," Washington Group Company, 2 pages

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